

# 中国材料进展

ZHONGGUO CAILIAO JINZHAN

第29卷总第341期 2010年第5期 (月刊)

## 目次

### 钛及钛合金材料专栏

- 国内外钛合金研究的发展现状及趋势 ..... 赵永庆 (1)
- SiC纤维增强钛基复合材料界面研究及构件研制  
..... 王玉敏, 肖鹏, 石南林, 雷家峰, 杨锐 (9)
- 航空用损伤容限型钛合金研究与应用 ..... 朱知寿, 王新南, 童路, 商国强 (14)
- 非连续增强钛基复合材料研究新进展 ..... 毛小南, 于兰兰 (18)
- 钛材在海军工程中的应用及需要解决的问题 ..... 蒋成禹, 赵勇 (25)
- 粉末冶金钛合金的应用现状 ..... 蔡一湘, 李达人 (30)
- 中国钛工业的历史沿革 ..... 王向东 (39)

### 综合评述

- 粉末注射成形的研究进展 ..... 曲选辉 (42)
- CuSn-P-Mo-C系统烧结轴承材料性能的研究 ..... 王凤云, 潘冶, 梁昌霞 (48)

### 国家重点实验室介绍

- 打造高水平团队 构建金属材料近净成形科研创新平台  
——国家金属材料近净成形工程技术研究中心 ..... (54)

### 热点评论

- 高性能金属材料的控制凝固与控制成形 ..... 谢建新, 石力开 (58)
- 我国建材行业新兴产业发展探讨 ..... 姚燕 (59)
- 抓住机遇迎接碳纤维复合材料发展的新时期 ..... 唐见茂 (60)

### 综合报道

- “2010年全国生物材料大会”在成都隆重召开 ..... 乔丽静 (61)
- 中科院宁波材料技术与工程研究所开发的生物基无醛木材  
胶粘剂技术实现了成果转移 ..... (13)
- 中科院苏州纳米技术与纳米仿生研究所碳纳米管宏观取向材料研究取得新进展 ..... (29)
- 石墨烯-半导体量子点复合体系薄膜制备及其光电性能研究取得新进展 ..... (38)
- 中科院物理所在全固态超短脉冲激光研究方面取得系列新进展 ..... (47)
- “航空钛合金技术发展论坛”在北京成功召开 ..... (64)

期刊基本参数: CN61-1473/TC·1982·M·A4·64·ZH·P·¥ 20.00·5000·14·2010-05

主管单位: 西北有色金属研究院  
主办单位: 中国材料研究学会  
西北有色金属研究院  
协办单位: 中国工程院化工、冶金与  
材料工程学部

编辑: 《中国材料进展》杂志社  
地址: 陕西省西安市未央路96号  
邮编: 710016  
网址: <http://www.mat-china.com>

主编: 周康  
副主编: 王克光 韩雅芳 刘建章

北京编辑部: 王克光 陆辛 张增志  
电话: 010-82376537

西安编辑部: 刘建章 黄淑梅 易毅刚  
刘春芳 范丹 刘新梅  
电话: 029-86224484  
E-mail: [editor@mat-china.com](mailto:editor@mat-china.com)  
[rml@c-nin.com](mailto:rml@c-nin.com)

广告发行部: 薛煜峰 高虹  
电话: 029-86224484  
传真: 029-86279984  
E-mail: [ad@mat-china.com](mailto:ad@mat-china.com)

出版: 化学工业出版社  
印刷: 西安创维印务有限公司

国内发行: 陕西省邮政报刊发行局  
邮发代号: 52-281  
国外发行: 中国国际图书贸易总公司  
发行代号: M2980  
国内统一刊号: CN 61-1473/TG  
国际标准刊号: ISSN 1674-3962  
广告经营许可证: 6100004000126

国内定价: 20元/册  
国际定价: 96美元/年

万方数据

# MATERIALS CHINA

Vol.29 No.5 Sum 341 May 2010 (Monthly)

## Contents

### Special Column for Ti and Ti Alloy Materials

- Current Situation and Development Trend of Titanium Alloys ..... ZHAO Yongqing (1)
- SiC Fibre Reinforced Titanium Matrix Composite: Interface Evolution and Component Manufacturing ..... WANG Yumin, XIAO Peng, SHI Nanlin, *et al* (9)
- Research and Application of Damage Tolerance Titanium Alloys for Aeronautical Use ..... ZHU Zhishou, WANG Xinnan, TONG Lu, *et al* (14)
- New Development in Research of Discontinuously Reinforced Titanium Matrix Composites ..... MAO Xiaonan, YU Lanlan (18)
- Titanium in Navy Engineering Applications and Problems to Be Solved ..... JIANG Chengyu, ZHAO Yong (25)
- Application of Ti-Alloys Prepared by Powder Metallurgy ..... CAI Yixiang, LI Daren (30)
- Historical Evolution of China Titanium Industry ..... WANG Xiangdong (39)

### Comprehensive Reviews

- Advance in Research of Power Injection Molding ..... QU Xuanhui (42)
- Study on Properties of CuSn-P-Mo-C Sintered Bearing Materials ..... WANG Fengyun, PAN Ye, LIANG Changxia (48)

### Introduction of State Key Laboratory

- Creating a High-Level Group and Constructing an Innovative Platform for Scientific Research of Metallic Materials Near-Net-Shape Processing  
——A Profile of State Engineering Research Center for Metallic Materials Net-Shape Processing ..... (54)

### Hot Topics

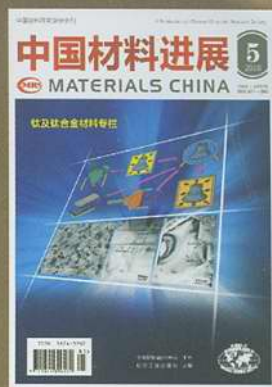
- Controlled Solidification and Controlled Forming of High-Property Metal Materials ..... XIE Jianxin, SHI Likai (58)
- Discussion on Development of Emerging Industries of Building Materials in China ..... YAO Yan (59)
- Seizing the Good Opportunity and Embracing the New Development Stage of Carbon Fiber-Reinforced Polymer (CFRP) ..... TANG Jianmao (60)

### Comprehensive Reports

- National Conference on Biomaterials 2010 Held in Chengdu ..... QIAO Lijing (61)
- Biobased Formaldehyde-Free Wood Adhesive Developed by Ningbo Institute of Material Technology & Engineering Chinese Academy of Sciences Successfully Realized Achievement Transformation ..... (13)
- New Progress Made in Research of Carbon Nanotube Macro-Oriented Materials by Suzhou Institute of Nano-Tech and Nano-Bionics, CAS ..... (29)
- New Progress Made in Preparation of Graphene-Semiconductor Quantum Dots Compound System Film and Relevant Photoelectric Properties ..... (38)
- A Series of Achievements Made in All-Solid State Ultra-Short Laser Pulse by Institute of Physics Chinese Academy of Sciences ..... (47)
- Technical Development Forum on Aeronautical Titanium Alloys Held in Beijing ..... (64)

Serial Parameters: CN61-1473/TG\*1982\*M\*A4\*64\*ZH\*P\* ¥ 20.00\*5000\*14\*2010-05

万方数据



Sponsored by Chinese Materials Research Society  
Managed by Northwest Institute for Nonferrous Metal Research  
Supported by Division of Chemical, Metallurgical and Materials Engineering, CAE  
Edited by The Editorial Board of Materials China  
Address: No.96, Weiyang Road, Xi'an City, Shaanxi 710016, P.R. China  
Website: <http://www.mat-china.com>

Editor-in-Chief: Zhou Lian

Vice-Chief Editors:

Wang Keguang Han Yafang Liu Jianzhang

Beijing Editorial Office:

Wang Keguang Lu Xin Zhang Zengzhi

Telephone: 0086-10-82376537

Xi'an Editorial Office:

Liu Jianzhang Huang Shumei Yi Yigang

Liu Chunfang Fan Dan Liu Xinmei

Telephone: 0086-29-86224484

E-mail: [editor@mat-china.com](mailto:editor@mat-china.com)

[rnl@e-nin.com](mailto:rnl@e-nin.com)

Advertisement & Issue Office:

Xue Yufeng Gao Hong

Telephone: 0086-29-86224484

Fax: 0086-29-86279984

E-mail: [ad@mat-china.com](mailto:ad@mat-china.com)

Published by Chemical Industry Press

Printed by Xi'an Chuangwei Printing Co., Ltd.

Domestic Distributor:

Post Distributing Office of Shaanxi

Post Distribution Code: 52-281

Overseas Distributor:

China International Book Trading Corporation

Overseas Circulation Code: M2980

Overseas Annual Subscription Rate: USD96